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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/025,588

12/26/2001

Tsutomu Yuasa

21581/0284

7945

30678

7590

11/13/2003

CONNOLLY BOVE LODGE & HUTZ LLP  
SUITE 800  
1990 M STREET NW  
WASHINGTON, DC 20036-3425

EXAMINER

PEZZUTO, HELEN LEE

ART UNIT

PAPER NUMBER

1713

8

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/025,588

Applicant(s)

YUASA ET AL.

Examiner

Helen L. Pezzuto

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z. 6) ☐ Other:

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**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of group I, claims 1-10 in Paper No. 6 is acknowledged.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 11-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in Paper No. 6.

Claims 1-10 are currently under consideration in this application.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 3-4, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-07-010943.

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JP-07-247150 discloses and exemplifies a process of producing a concrete additive copolymer containing 10-99 wt% of oxyalkylene unit-containing monomer of formula I, 5-95 wt% of oxyalkylene unit-containing monomer of formula II, and 90-1 wt% of a carboxylic acid monomer of formula III, such as acrylic acid. The addition of a chain transfer agent such as mercaptoethanol was also exemplified.

JP-2000-159555 discloses and exemplifies the production of a cement additive copolymer derived from at least one polyalkylene glycol (meth)acrylate, a (meth)acrylic acid, and a thiol chain transfer agent such as 3-mercaptopionic acid.

JP-07-010943 discloses and exemplifies a process of making a water-soluble copolymer derived from a polyethylene glycol (meth)acrylate, and other ethylenically unsaturated monomer such as alkyl acrylates and acrylic acid. JP-943 further discloses and exemplifies the inclusion of a thiol chain transfer agent such as ethanethiol or butanethiol. Thus, meeting the limitations of the present claims.

5. Claims 3-4, and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsubakimoto et al. (US-100).

U.S. 4,471,100 to Tsubakimoto et al. discloses a method of making a copolymer comprising at least one oxyalkylene-containing monomer and a maleic acid type monomer (col. 1, line

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49 to col. 2, line 43; col. 3, line 65 to col. 4, line 47).

Other copolymerizable vinyl monomers include (meth)acrylic acid.

Thus, anticipating the present claims.

6. Claims 3-4, 6-10 are rejected under 35 U.S.C. 102(b) or 102(a) as being anticipated by JP-07-247150 or JP-2000-159555 or JP-2000-247706 or JP-2000-319054 or Satoh et al. (US-820).

JP-2000-247706 discloses and exemplifies a process of producing a cement dispersing copolymer comprising a polyalkylene glycol (meth)acrylate and/or an alkoxypolyalkylene glycol (meth)acrylate, a water-soluble monomer such as (meth)acrylic acid, other ethylenically unsaturated monomers, and a mercapto chain transfer agent.

JP-2000-319054 discloses and exemplifies a process of making a cement additive copolymer comprising two kinds of polyalkylene glycol esters represented by formula I and II, a carboxylic acid monomer, other copolymerizable monomer, and chain transfer agent.

U.S. 5,911,820 to Satoh et al. discloses and exemplifies a process of making a concrete admixture comprising a copolymer. Prior art copolymer comprises an ethylenically unsaturated monomer having 25-300 moles of C<sub>2</sub>-C<sub>3</sub> oxyalkylene groups, and an alkyl, alkenyl or hydroxyalkyl ester of an ethylenically unsaturated mono or di-carboxylic acid 9col. 3, line 5 to col.

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4, line 15. Additional copolymerizable monomers include (meth)acrylic acid (col. 4, lines 16-45). Prior art further teaches the inclusion of a thiol chain transfer agent (col. 5, lines 13-19; working examples).

Accordingly, since prior art references discussed disclose and exemplify processes of producing the presently claimed polycarboxylic acid copolymer, the instant claims are anticipated by the disclosures of these references.

7. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by EP-0 174 644.

EP-644 discloses a concrete admixture comprising a polymer derived from polyethyleneimine reacting with (meth)acrylic acid and alkylene oxide, thus meeting the terms of the instant claim.

8. Claims 1-2, 5, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-11-269239.

JP-239 discloses and exemplifies a graft polymer used as a cement additive. Prior art graft polymer is obtained by polymerizing an alkylene oxide with a polyalkyleneimine, and an unsaturated carboxylic acid monomer such as (meth)acrylic acid and maleic acid/anhydride. Prior art further teaches the inclusion of other monomer such as (methacryloyl oxypropyl) trimethoxysilane, which clearly

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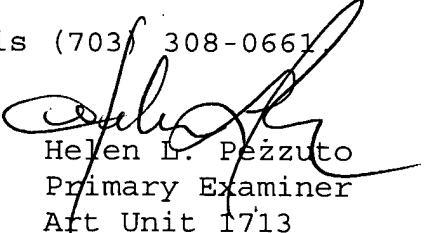
encompasses the additional monomer expressed in claim 5. Mercapto compounds such as mercaptoethanol and mercaptopropionic acid are also taught in the reference, which encompass the instant thiol chain transfer agent expressed in claims 8-9. Accordingly, the instant claims are anticipated by prior art disclosure.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (703) 308-2393. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Helen L. Pezzuto  
Primary Examiner  
Art Unit 1713